C. V. FULLER.

SANITARY TELEPHONE MOUTHPIECE.

APPLICATION FILED JULY 20, 1911.

1,026,503. Patented May 14, 1912.

Fig. 1

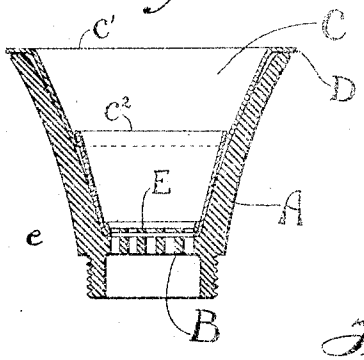


Fig. 2

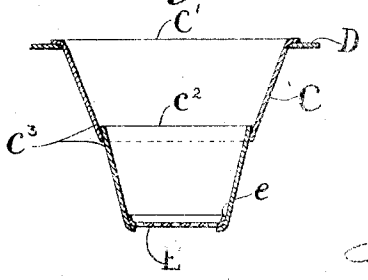


Fig. 3

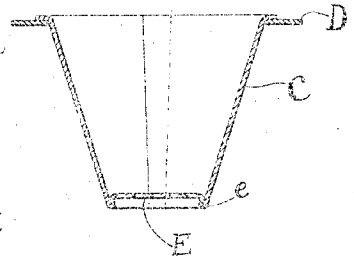


Fig. 4

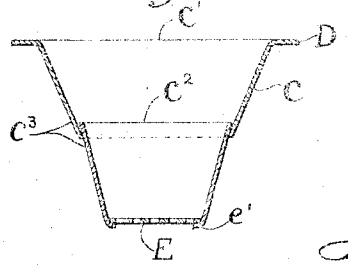


Fig. 5

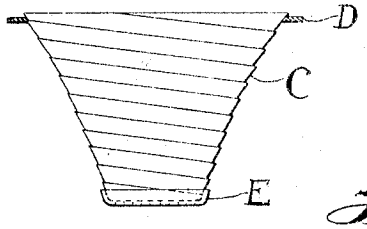


Fig. 6

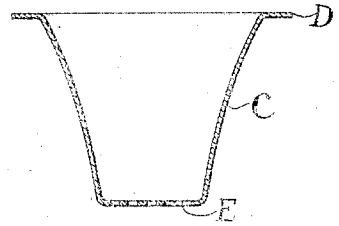
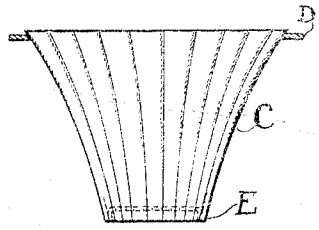


Fig. 7



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SANITARY TELEPHONE-MOUTHPIECE.

1,026,503. Specification of Letters Patent. Patented May 14, 1912.

Application filed July 20, 1911. Serial No. 639,600.

To all whom it may concern:

Be it known that I, CLAUDE V. FULLER, a citizen of the United States, residing in the city of Newark, in the county of Essex and State of New Jersey, have invented certain new and useful Improvements in Sanitary Telephone-Mouthpieces, of which the following is a specification.

My invention in sanitary telephone mouth pieces relates to a removable lining which may be inserted in the mouth piece of a telephone transmitter and which may be sold at a sufficiently low price, as to be discarded after it has been used but once.

My invention has reference to attachments for telephone mouth pieces which may be readily removed and replaced by a person making use of the telephone with facility and in this connection, the object of my invention is to provide a simple and effective means for preventing the spreading of disease, through infection between the different individuals using a common telephone mouth piece.

The feature characteristic of my invention whereby I attain the object thereof, lies in the construction of a lining which may be readily applied to the inner walls of a telephone mouth-piece as well as to the outer rim or edge thereof whereby any infectious deposit or sediment which may be clinging to the inner surface of the telephone mouth-piece will be shielded by the said lining from an individual in the act of aspirating during speech through the telephone mouth piece to which my improved shield or lining is applied.

In carrying out my invention I have preferred to employ paper or other inexpensive material in the construction of these antiseptic shields or bacterial-screens at a sufficiently low cost to the user to promote liberality in their renewals. To afford the highest degree of efficiency to these antiseptic shields, I prefer the construction best adapted to lie as nearly in contact with the inner walls or exposed end of the usual form of telephonic transmitter mouth piece and such constructions as may be expeditiously manufactured by a mechanical operation from light or medium grades of paper.

The construction referred to is depicted in the drawings hereto attached which form part of this specification, and which are to be taken in connection with the appended correlative descriptive matter, and the distinct features of novelty are referred to in the claim at the conclusion of the specification.

With reference to the drawings Figure 1, is a sectional elevational view through a telephone mouth piece transmitter, and a lining or shield in accordance with my invention. Fig. 2, is a sectional elevational view of a modification of my invention. Fig. 3, is a similar view of another modification of my invention. Fig. 4, a similar view of still another modification of my invention. In these four figures I have illustrated a form of telephonic mouth piece lining, or shield of paper assuming a conical formation wherein the lateral walls assume the form of converging straight lines either throughout or in part. Fig. 5, is a vertical elevational view of another modification of my invention illustrating a form which my improved mouth piece lining may assume when the same is spirally wound over a mandrel or other suitable form. Fig. 6, is a sectional elevational view of another modification of my invention having curved converging lateral walls conforming to the walls of the mouth piece Fig. 1 which may be constructed of a grade of paper or other suitable material which will yield when the same is spun over a mandrel or other suitable form having a curved conical surface and Fig. 7, is a vertical sectional elevational view of still another modification of my invention, wherein the lateral walls are plaited or folded over a suitable form, to provide the necessary conical surface, to conform to the inner surface of the mouth piece illustrated in Fig. 1.

In the several views similar characters of reference refer to like or corresponding parts where they occur; wherein—

A depicts the usual telephonic transmitter mouth piece constructed of molded hard rubber or molded plastic material or glass or porcelain or the like having an integral perforated bottom B. Carried within the mouth piece A is my improved lining or shield C. This consists of a conically formed interfitting shell, composed preferably of waxed or other suitably prepared paper having an annular flange D, projecting outwardly from the surface of the shell and at the outer end or mouth thereof; and surrounding the corresponding end of the mouth piece oppositely situated to the flange

D and within the shell or lining C is a perforated bottom E corresponding to the bottom B of the mouth piece A.

The shell C illustrated in the forms Figs. 1, 2, and 4 is constructed in two sections, an upper section C′ and a lower section C², being smaller in diameter than the section C′. The section C′ is interfitted therewith and is united equatorially by a telescopic, conical joint C³. The purpose of forming the shell C in section C′ and C² is to provide an outer wall which more approximately conforms to the inner and corresponding surface or wall of the telephonic mouth piece A; when the usual grades of paper are employed which when otherwise constructed does not permit of the requisite degree of shaping in the process of manufacture, due to the nature of this material resisting stretching. Upon examination of a mouth piece of an ordinary telephone transmitter it will be noted that the same diverges outwardly from the inner end thereof in a curve, and not in a straight line. By reason of this fact it is quite difficult to construct an antiseptic guard of a single piece of paper which will conform to the curvilinear disposition of the mouth piece, principally because the paper will not permit of stretching. This is readily compensated for by constructing the mouth piece in two sections, having different degrees of inclination so that when they are secured together equatorially and inserted into the transmitter they will frictionally engage the inner wall of the latter sufficient to retain the device as a whole from displacement.

In Figs. 1 and 2 I have shown similarly constructed bottoms E. These bottoms are formed of a grade of paper or other suitable material which may be pressed to the form of a shallow cup or dish having a sufficient width of the upturned edge or flange which is designated *e* in the drawings, to present the necessary surface for properly securing it within the lower terminus of the section C²; when the former material is employed a light grade of straw board appears to possess the requisite degree of extensibility when moistened to permit of the required pressing to accomplish the end sought.

In Fig. 4 I have illustrated a construction for the bottom E which necessitates the use of a more rigid material than in the other constructions referred to, in which instance a perforated bottom of bristol board, gelatin, celluloid or the like is forced into the section C² so as to wedge itself into the narrow bottom thereof; after which the bottom edge designated *e′* is spun over. It is obvious however, that the lower section C² may be rolled or formed around the bottom E in the process of manufacture and fastened thereto with an adhesive material.

In Fig. 3 I have illustrated a form where in the bottom E is introduced in a reversed position from that illustrated in Figs. 1 or 2 and in this instance the flange *e* is contracted to conform to the diverging walls of the shell C and due to the resulting compression a suitable joint may be made at the points of contact when a comparative light grade of paper is employed in its construction.

In Fig. 5 I have illustrated a form of shell C which may be readily constructed of narrow tape or a ribbon of paper by winding the same spirally upon itself one or more times for each convolution of the paper strip, a suitable form being employed within the conical shell thus constructed to shape the walls thereof, after which a bottom E may be applied preferably exteriorly to the lower extremity or truncated end of the conical shell in which instance the form of the bottom illustrated in Figs. 1 and 2 is employed.

In Fig. 6 I have illustrated the form of shell or bacterial screen for the mouth piece A which may be formed by a spinning process when a sufficiently yielding grade of paper is employed and suitably moistened to endure the requisite stretching and to stand the mechanical operation to be performed thereon. In this figure it will be observed that the bottom E and the flange D are integral with the walls of the shell C.

In the construction illustrated in Fig. 7 I have shown a form of shell C which may be formed on a mandrel in a similar manner to that illustrated in Fig. 6; this may be constructed of a grade of paper not possessing the degree of yield or extensibility of that demanded by the construction illustrated in Fig. 6, and to this end a suitable disk or blank of the material is plaited or folded radially in a suitable form or mold or it may be spun to affect the longitudinal formation of the plaits or folds in order to provide the requisite conical formation. A bottom E illustrated in the dotted lines may be introduced interiorly or applied exteriorly as in Fig. 5, to stiffen or reinforce the perforated terminus of the structure.

In Figs. 2, 3, 5, and 7, I have shown the flange D as being constructed of separate material from their corresponding shells and assembled thereon while in Figs. 1, 4, and 6, I have shown the flanges D to be integral parts of the shell C; the former construction is resorted to when the grade of material employed does not permit of the requisite amount of distortion which the latter construction necessitates in the process of construction.

In any of the formation of the shells or screens C and their correlative parts a suitable sizing or coating of wax is applied interiorly and exteriorly to fill the pores and interstices of the material or other crevices,

and to render the surfaces impregnable to bacteria or other infection: the aim of the shell C being to form a bacterial screen to prevent the exit of disease germs which may gather on the inner surface of the mouth piece A either between the outer surface of the lining C and the inner surface of the mouth piece A and out over the edge of the latter or by transition or migration through the wall of the shell C or through any pore, hole or crevice thereof, and in order to render the telephonic mouth piece still further aseptic by the use of my improved shell or screen I prefer to saturate the same in a suitable antiseptic preparation which at the same time will emit an agreeable odor.

It is a purpose, in introducing my invention to the public, to place in public or other places a generous supply of my improved antiseptic shells or screens in either an automatic vending machine or employ an equally accessible method or both for placing them in the hands of the public and at a low cost.

Having fully described my invention I claim as new and desire to secure by Letters Patent of the United States—

A sanitary guard for mouth pieces of telephone transmitters, comprising telescopic sections having the form of truncated cones, said sections further having different degrees of inclination and being extended and secured together.

In testimony whereof, I have signed my name to this specification in the presence of two subscribing witnesses.

CLAUDE V. FULLER.

Witnesses:

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J. G. HEMERICH.